09/831488 JC. Rec'd PCT/PTC 09 MAY 2001

Abstract

An actuator (10) for use in installing or extracting piles and the like has a common member (12) supported at (14) and having jaws (16) for gripping a pile. Within the block (12) a double-acting piston (18) is located alongside a space (20) for a control valve arrangement which provides hydraulic fluid, in various ways described, to create vibratory or impact forces from the piston (18). The piston and the valve arrangements are both removable and replaceable by alternatives, to modify the mode of operation of the actuator (10).